

WHAT IS CLAIMED IS:

1. A video encoding apparatus comprising:

a picture memory for holding inputted pictures;

a reference time generation means for generating time information to be a reference;

a picture input means for writing an inputted picture into a designated position in the picture memory;

an input time recording means for recording a time that is outputted from the reference time generation means when a picture is inputted to the picture input means, and a position in the picture memory where the inputted picture is written, such that the time is associated with the position;

an encoding means for encoding data in a designated position in the picture memory; and

a picture memory designation means for designating positions in the picture memory which are targeted for processing, and indicating the positions to the picture input means and the encoding means, respectively, on the basis of the information recorded by the input time recording means.

2. The video encoding apparatus of Claim 1 wherein, when the picture memory designation means designates a position in the picture memory for the encoding means, the picture memory designation means designates a position corresponding to a time which is closest to an ideal input time of data to be encoded.

3. The video encoding apparatus of Claim 1 wherein, when the picture memory designation means designates a position in the picture memory for the picture input means, if data in the picture memory has not yet been encoded, the picture memory designation means stops data input until a writable memory area is secured.

4. The video encoding apparatus of Claim 1 wherein, when the picture memory designation means designates a position in the picture memory for the picture input means, if data in the picture memory has not yet been encoded, the picture memory designation means designates a position corresponding to the latest time.

5. A video encoding method employing a picture memory for performing reordering of pictures for predictive coding, said method comprising the steps of:

a picture inputting step of writing an inputted picture into a designated position in the picture memory;

an input time recording step of recording a time at which the picture is inputted, and the position in the picture memory where the inputted picture is written, such that the time is associated with the position;

a picture memory designation step of designating positions in

the picture memory which are targeted for processing in the picture inputting step and an encoding step, respectively, on the basis of the information recorded in the input time recording step; and

an encoding step of encoding data in a designated address in the picture memory.

6. The video encoding method of Claim 5, wherein

the picture memory designation step includes a step of designating a position in the picture memory, which position is closest to an ideal input time of data to be encoded, when designating a position in the picture memory in the encoding step.

7. The video encoding method of Claim 5, wherein

the picture memory designation step includes a step of stopping data input until a writable memory area is secured, if data in the picture memory has not yet been encoded when designating a position in the picture memory in the picture inputting step.

8. The video encoding method of Claim 5, wherein

the picture memory designation step includes a step of designating a position in the picture memory, which position corresponds to the latest time, if data in the picture memory has not yet been encoded when designating a position in the picture

memory in the picture inputting step.

9. A frame rate conversion apparatus comprising:

plural frame memories for holding inputted pictures;

a reference time generation means for generating time information to be a reference;

a picture input means for writing an inputted picture into a designated address in a frame memory;

an input time recording means for recording a time which is outputted from the reference time generation means when a picture is inputted to the picture input means, and an address in the frame memory where the inputted picture is written;

an encoding cycle setting means for outputting an encoding cycle setting signal which designates an encoding cycle;

an encoding means for encoding data in a designated address in the frame memory; and

a picture memory designation means for designating addresses in the frame memory which are targeted for processing, and indicating the addresses to the picture input means and the encoding means, respectively, on the basis of the information recorded by the input time recording means, and the encoding cycle setting signal outputted from the encoding cycle setting means.